

Working Draft **BDCP Outline**

Note to Reviewers: *This working draft of the BDCP outline document is intended to provide the Steering Committee with an understanding of the content requirements of the document and the types of information and processes that will need to be developed through the course of 2008 to complete the BDCP document on schedule. It is anticipated that this outline will change as we proceed through the development of the BDCP as each component of each chapter is more fully defined.*

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Executive Summary

Chapter 1. Introduction

1.1 Background

This section will describe the genesis of the BDCP.

1.2 BDCP Goals and Objectives

This section will describe the Planning Agreement goals and objectives.

1.3 Regulatory Context

1.3.1 Need for the BDCP HCP/NCCP

This section will describe the applicable federal and state laws and regulations with which the HCP/BDCP is intended to comply and will list the Permit Applicants.

1.3.2 Relationship with Existing Biological Opinions

This section will describe the relationship of the BDCP to OCAP and any other applicable Biological Opinions or court rulings.

1.3.3 Relationship between the BDCP HCP/NCCP and Other Federal and State Laws and Regulations

This section will describe other federal and state laws and regulations with which the BDCP HCP/NCCP implementation may need to comply.

1.4 Scope of the BDCP HCP/NCCP

1.4.1 Geographic Scope

This section will describe the geographic scope of the BDCP HCP/NCCP, defined as the planning area.

1.4.2 Covered Natural Communities

This section will identify and describe the rationale for the natural communities proposed for coverage under the BDCP NCCP/HCP.

1.4.3 Covered Species

This section will describe the covered species selection process and identify the species proposed for coverage under the BDCP HCP/NCCP.

1.4.4 Covered Activities

This section will briefly describe the types of activities to be covered under the BDCP HCP/NCCP and direct the reader to Chapter 4, *Covered Activities*, for detailed descriptions of the activities.

1.5 Overview of the BDCP HCP/NCCP Process

1.5.1 BDCP Organization and Structure

This section will describe the Steering Committee members and the Steering Committee's role in developing the BDCP HCP/NCCP. This section would also describe participation by the Fisheries Agencies as ex-officio members and possibly the Steering Committee's coordination with other relevant programs (e.g., Delta Vision, CALFED).

1.5.2 Coordination with Agencies, Stakeholders, and Public Outreach

This section will discuss the role of state and federal agencies, stakeholders, and the public in the development of the BDCP, including agency coordination, stakeholder participation, and public involvement.

1.5.3 Integration of Science

This section will describe the independent science process that was used to inform the development of the BDCP and discuss role of the process in meeting the requirements of the NCCPA and following agency guidance relating to the ESA. This section will briefly describe other sources of independent science input that were solicited by the Steering Committee.

1.6 Organization of the BDCP HCP/NCCP

This section will provide a brief overview the contents of the HCP/NCCP document.

Chapter 2. Existing Ecological Conditions

2.1 Introduction

This section will describe the contents of the chapter and the purpose of including this information in the BDCP. Information provided in this Chapter will help guide the development of the conservation measures included in Chapter 3, *Conservation Strategy*, and provide the basis for the impact assessment presented in Chapter 5, *Impact Assessment and Level of Take*.

2.2 Historical Conditions

This section will provide a brief description of relevant historical physical and biological conditions present in the planning area.

2.3 Existing Ecological Conditions

2.3.1 Data Sources and Methods

This section will describe data collected for the development of the BDCP. This section will describe sources and content of hydrologic data, physical data (e.g., bathymetry, topography, geology, and soils), and land cover data used. Supporting information (e.g., GIS metadata) will be provided in an Appendix.

2.3.2 Ecosystem Processes

This section will provide a general overview of the large-scale ecological processes that affect the Delta, including physical, geomorphic, chemical, and biological processes. Examples of processes include tidal action, salinity gradients, hydrodynamics, sediment movement, chemical bioaccumulation, productivity, and food web dynamics.

2.3.3 Physical Conditions

This section will describe the geomorphic, soil, climatic, hydrologic, tidal, and other important physical conditions present in the Delta that are important to supporting the Delta ecosystem.

2.3.4 Covered Natural Communities

This section will describe the covered natural communities. Three covered natural communities have been preliminarily identified: tidal perennial aquatic, tidal freshwater emergent, and valley riparian. Additional communities could be covered by the Steering Committee depending on the activities ultimately covered under the BDCP. The following types of information will be described for each community:

- Physical conditions that support the community;
- Vegetation and wildlife associated with the community;
- Non-native species that affect the ecological functions of the community;
- Ecological functions provided by the community;
- Ecological gradients; and
- Likely future conditions with climate change.

2.3.5 Other Biological Communities

This section will briefly describe the attributes of other biological communities present in the planning area that are not covered by the BDCP (e.g., lacustrine, grassland, agricultural land).

2.3.6 Covered Species

This section will describe the status of the covered species, using the most current and relevant scientific information. The section will include a discussion of important species stressors, designated critical habitat, and essential fish habitat.

2.4 Biodiversity

This section will address the status of biodiversity within the planning area.

Chapter 3. Conservation Strategy

3.1 Introduction

This section will introduce and provide an overview of the Chapter contents.

3.2 Biological Goals and Objectives

This section will describe the biological goals and objectives related to the Delta ecosystem, covered natural communities, and covered species. This section will also describe the process used to develop the biological goals and objectives.

3.3 Approach to Conservation

This section will describe the general approach to the BDCP conservation strategy.

3.3.1 Near-Term Implementation

This section would generally describe the approach to conservation over the course of the near-term phase.

3.3.2 Long-Term Implementation

This section would generally describe the approach to conservation over the course of the long-term phase, including conservation actions that may be appropriate for early implementation.

3.3.3 Conservation Measures

This section would describe the categories of conservation measures that would be implemented in the near-term and the long-term implementation phases.

3.4 Conservation Concepts

This section will describe key conservation concepts addressed in the conservation strategy. This section will describe the ecological foundation and concepts used in the development of the specific conservation measures presented in sections 3.5, 3.6, and 3.7.

3.4.1 Habitat Protection

This section will describe the approach to and criteria for protecting existing important habitats.

3.4.2 Physical Habitat Enhancement Concepts

This section will identify key design concepts for enhancing the functions of existing aquatic, wetland, and riparian habitats to benefit covered species and natural communities, and set out the criteria for identifying habitat areas suitable for enhancement.

3.4.3 Flow-Related Habitat Enhancement Concepts

This section will describe approaches to water operations designed to benefit covered fish species.

3.4.4 Habitat Restoration Concepts

This section will describe key design concepts for restoring habitat for covered species (e.g., levee setbacks).

3.4.5 Toxics Control Concepts

This section will describe approaches to conserving covered species through the control of toxics.

3.4.6 Non-native Species Control Concepts

This section will describe approaches to conserving covered species through the control of non-native species of plants and animals.

3.4.7 Other Conservation Concepts

This section will describe approaches to conserving covered species through other means (e.g., contributing to other programs to implement measures outside of the planning area that are beneficial to covered species, avoidance and minimization of impacts).

3.5 Ecosystem Level Conservation Measures

This section will describe ecosystem level conservation measures designed to improve overall ecosystem conditions and physical and biological processes in the Delta (e.g., proportional range of habitats to be restored in various regions of the Delta to optimize ecosystem benefits; operations designed to improve residence time, provide migration cues, and support larval/juvenile transport; measures designed to reduce effects of contaminants; control of non-native species). This section will, if needed, distinguish between near-term and long-term implementation measures.

3.6 Natural Community Conservation Measures

This section will describe measures that would be undertaken to protect, enhance, and restore natural communities and their ecosystem functions. This section will, if needed, distinguish between near-term and long-term implementation measures.

3.7 Species-Specific Conservation Measures

This section will describe conservation measures that will be implemented specifically to benefit covered species. Ecosystem-level and natural community-level conservation measures described in the sections above are anticipated to address much of the species conservation needs, therefore, this section will provide only the additional species-specific measures needed. This section will also describe expected outcomes for each covered species after full implementation of the conservation measures.

3.8 Implementation Schedule

This section will generally describe the timeframe for implementing the conservation measures.

3.9 Monitoring

This section will describe the BDCP commitments for implementing a monitoring program to provide the information necessary to adaptively manage BDCP implementation.

3.10 Adaptive Management

This section will describe the components of the BDCP adaptive management program, including its purpose and scope.

3.11 Summary of the Approach to Minimization and Mitigation of Effects

This section will discuss the approach under the BDCP to ensure that the effects of covered activities are minimized and mitigated to the maximum extent practicable, consistent with the requirements of section 10 of the ESA and Natural Community Conservation Planning Act.

Chapter 4. Description of Covered Activities

4.1 Introduction

This section will provide context for the description of covered activities in subsequent sections.

4.2 Water Deliveries

4.2.1 State Water Project Contractors

This section will describe the water deliveries requested by the SWP contractors.

4.2.2 Central Valley Project Contractors

This section will describe the water deliveries requested by the CVP contractors.

4.3 Existing Water Supply Facilities Operations and Maintenance

4.3.1 State Water Project Contractors

This section will describe operations and maintenance (O&M) in the near-term of existing SWP facilities.

4.3.2 Central Valley Project Contractors

This section will describe O&M in the near-term of existing CVP facilities.

4.4 New Water Supply Facilities and Operations and Maintenance

4.4.1 Isolated Conveyance Facility

This section will describe the isolated facility, associated conveyance and other appurtenant facilities, water operations, O&M activities, and implementation schedule.

4.4.2 In-Delta Conveyance Improvements

This section will describe improvements to the through-Delta conveyance facilities, water operations, O&M activities, and implementation schedule.

4.5 Mirant Energy Water Use

This section will describe the water use by Mirant for its two power plants.

4.6 Conservation Strategy Implementation

This section will describe the components of the conservation strategy that could have adverse affects on covered species (e.g., physical habitat restoration).

Chapter 5. Assessment of Impacts and Level of Take

5.1 Introduction and Approach

This section will describe the purpose and contents of this Chapter.

5.2 Regulatory Context and Environmental Baseline

This section will describe the environmental baseline that will provide the basis from which to identify impacts on covered natural communities and covered species.

5.3 Impact Assessment Methods

Each subsection of this section will describe the methods used to conduct the impact assessment, including impact mechanisms, assessment tools, and key assumptions used in the assessment. This section will address groupings of covered activities that require differing assessment methods.

5.3.1 Infrastructure Construction

5.3.2 Infrastructure Operations and Maintenance

5.3.3 Water Operations and Conveyance

5.3.4 Conservation Strategy Implementation

5.4 Impacts on Covered Natural Communities

This section will describe impacts, both beneficial and adverse, of the covered activities on each of the covered natural communities, including the extent of each community that would be removed and impacts on ecosystem functions. The assessment may include a separate analysis for near-term and long-term implementation activities. The following subsections would be repeated for each covered natural community.

5.4.1 Tidal Perennial Aquatic

5.4.1.1 Infrastructure Construction

5.4.1.2 Infrastructure Operations and Maintenance

5.4.1.3 Water Operations and Conveyance

5.4.1.4 Conservation Strategy Implementation

5.5 Impacts on Covered Species

This section will describe impacts, both beneficial and adverse, of the covered activities on each of the covered species and will describe the estimated level of take. The assessment may include a separate analysis for near-term implementation activities and long-term implementation activities. The following subsections would be repeated, as applicable, for each of the covered species. For applicable covered fish species, the assessment would also assess impacts on essential fish habitat.

5.5.1 Delta Smelt

5.4.1.1 Infrastructure Construction

5.4.1.2 Infrastructure Operations and Maintenance

5.4.1.3 Water Operations and Conveyance

5.4.1.4 Conservation Strategy Implementation

5.4.1.5 Designated Critical Habitat

This section will assess potential impacts on designated critical habitat in the planning area for each applicable species. Designated critical habitat regulations apply only to the section 7 analyses that

will be conducted by USFWS and NMFS on the BDCP HCP/NCCP. The HCP/NCCP could include this analysis to support the USFWS and NMFS section 7 process.

5.6 Cumulative Effects

This section will describe how cumulative impacts of covered activities and the BDCP HCP/NCCP conservation measures on covered species will be addressed. Cumulative effects are defined under ESA regulations as those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 C.F.R. §402.02). This definition differs from the broader definition used under NEPA and other environmental laws. Cumulative impact regulations apply only to the section 7 analyses that will be conducted by USFWS and NMFS on the BDCP HCP/NCCP. The HCP/NCCP could include this analysis to support the USFWS and NMFS section 7 process. In this section, foreseeable non-Federal projects expected to occur in the planning area would be identified and their probable impacts on covered species assessed. Examples of non-Federal activities that could be included in the assessment of cumulative impacts include levee maintenance, new developments, farming practices, recreational uses, highway maintenance, and other non-federal activities that are not covered under the BDCP Regional HCP/NCCP.

5.7 Indirect Effects Outside of the Planning Area

ESA regulations define “indirect effects” as effects that are caused by a proposed action and are later in time, but still are reasonably certain to occur. The HCP/NCCP could include this analysis to support the USFWS and NMFS section 7 process. This section will address indirect effects, if any, on listed species outside of the planning area that are the reasonably certain to be caused by the covered activities and conservation measures.

Chapter 6. Plan Implementation

6.1 Implementation Schedule

This section will present the schedule for implementing all elements of the BDCP.

6.2 Compliance Monitoring and Reporting

This section will describe monitoring that will be undertaken in compliance with permit conditions (e.g., construction monitoring to ensure implementation), reporting procedures, and monitoring report contents.

6.3 Regulatory Assurances and Changed Circumstances and Unforeseen Circumstances

This section will describe the regulatory assurances requested by the Permit Applicants from the USFWS, NMFS, and DFG. This section would also describe changed circumstances and the remedial measures that would be implemented to address them should they occur.

Changed circumstances are defined as “changes in circumstances affecting a species or geographic area covered by a conservation plan that can reasonably be anticipated by plan developers and the USFWS and that can be planned for...” (50 C.F.R. §17.3).

This section will describe the approach for addressing unforeseen circumstances. Unforeseen circumstances are defined as “circumstances affecting a species or geographic area covered by a conservation plan that could not reasonably be anticipated by plan developers and the Services at the time of the conservation plan’s negotiation and development, and that result in a substantial and adverse change in the status of the covered species.” (50 C.F.R. §17.3)

6.4 Permit Duration, Amendment, Renewal, and Enforcement

This section will identify and describe the rationale for the requested duration of ESA and CESA permits and summarize processes described in the draft Implementing Agreement for amending the plan and for renewing and enforcing permits.

Chapter 7. Implementation Structure

This chapter will describe the BDCP implementing entity, structure, and decision making process.

Chapter 8. Implementation Costs and Funding Sources

8.1 Cost to Implement the BDCP

This section will describe cost estimates for each of the BDCP implementation cost categories (e.g., program administration, land acquisition, habitat restoration, remedial measures). The temporal distribution of costs over the term of the BDCP will be estimated.

8.2 Funding Sources and Assurances

This section will identify BDCP funding sources and the assurances that sufficient funding will be available for BDCP implementation.

Chapter 9. Alternatives Considered and Rejected

This Chapter will describe the alternatives that were considered and the reasons why they were not included in the proposed plan.

Chapter 10. Independent Science Advisory Process

This Chapter will describe BDCP coordination with the BDCP Independent Science Advisors and other science bodies (e.g., CALFED Independent Science Board) that provided input during BDCP development. The purpose of this section is to demonstrate compliance with NCCPA and guidance provided in the USFWS five-point policy.

Chapter 11. List of Preparers

This section will identify the preparers of the document. It would include a list of the Steering Committee members, the BDCP consultant team, and others that contributed to development of the BDCP.

11.1 Steering Committee

This section would list the name, title, and organization of individuals affiliated with the organizations represented on the Steering Committee or participating entities.

11.2. Technical Consultants

This section would list the name, title, and organization of individuals affiliated with the Technical Consultant Team.

11.3. Other Contributors

This section would list the name, title, and organization of individuals affiliated with other contributors to the BDCP development.

Chapter 12. References

12.1 Printed References

12.2 Personal Communications

Appendices

The following are potential appendices to the BDCP HCP/NCCP document.

- Covered Species Accounts
- SWP and CVP Contracts Covered by the Plan
- Hydrologic/Hydrodynamic Analyses
- List of Species Mentioned in the BDCP HCP/NCCP
- Methods for Delineating Natural Communities and Constituent Habitat Types
- Covered Natural Communities x Species Matrix
- Acronyms and Abbreviations used in the BDCP HCP/NCCP
- Glossary of Terms used in the BDCP HCP/NCCP